Arkansas River, where he classes it as a rare summer resident. I have found it to be abundant in this area, as far east as the Iron Mountain Railroad, and a common summer resident in all of the hilly counties south of the Arkansas River as well. I have examined many nests of this species in Benton, Washington and Faulkner Counties.

Conway, Ark.

SOME MICHIGAN BIRD RECORDS

BY WALTER KOELZ

These records have been selected from the notes of several years of bird study. Occasions for the making of observations have been offered only at intervals and no pretension is therefore made of listing the avifauna of any region. The data are presented rather with a view of contributing to our knowledge of the occurrence of certain species in the state.

Holbell's Grebe—Colymbus holbælli.

This bird has never been met with except on the Great Lakes. Here, the fishermen say, it is not uncommonly taken in the gill nets set in shallow water, and sometimes in the pound nets. Two specimens were thus obtained off the Duck Islands on the Canadian shore of Lake Huron in October, 1919. One was seen off Les Petits Ecrits, Ontario, in Lake Superior on October 4, 1921, and one was taken in the gill nets the same day.

RING-NECKED DUCK-Marila collaris.

A male of this species was shot at Waterloo, Jackson County, in March, 1914. A female was obtained from a hunter on September 5, 1916, at Waterloo. The bird was a young one and may have been bred in the vicinity.

Sandhill Crane—Grus canadensis mexicana.

These birds still nest in the extensive marshes of northeastern Jackson County. They arrive from the fifth to the twentieth of March and leave again some time in October. How many individuals remain to breed is not known, but in late summer there are always from twenty to thirty in a flock which roosts every night within a mile of the village of Waterloo. Cranes are extremely wary and are seldom shot.

Wilson's Snipe—Gallinago delicata.

This species probably nests every year near Waterloo. Certainly the wing-song of the male can be heard at night in April over the marshes where the snipes would be likely to breed. The nest was found once in a large pasture marsh in May, 1911. The eggs were much incubated and all but one was destroyed in blowing.

BARTRAMIAN SANDPIPER—Bartramia longicauda.

Two pairs formerly nested every year at Waterloo, but in the last two years none have been seen there.

PINNATED GROUSE—Tympanuchus americanus americanus.

Prairie Chickens occur in varying numbers at Waterloo. In the winter of 1920 a flock of about a hundred wintered near the village. In 1921 only twenty were seen. A few miles farther north this grouse is said to be commoner than the Ruffed Grouse.

Pigeon Hawk-Falco columbarius columbarius.

An adult female was caught in a trap at Ontonagon, Ontonagon County, on August 24, 1921. Another was seen for several days thereafter, hunting on the dunes with the Sparrow Hawks.

ACADIAN OWL—Cryptoglaux acadica acadica.

A female Acadian Owl was taken alive in an evergreen at Ann Arbor on March 4, 1919. An individual of this species was seen in a tamarack swamp at Waterloo on December 26, 1920. One was collected on December 27, 1921, at Waterloo and another at the same place on February 15, 1922.

Red-Bellied Woodpecker—Centurus carolinus.

At least one pair of these birds has lived every year for the last ten years in a certain ash and maple woods near Waterloo. A male was collected there on December 28, 1921. On March 26, 1922, another male was observed excavating a hole in the top of a dead ash.

YELLOW-BELLIED FLYCATCHER—Empidonax flaviventris.

This species is not often recorded but doubtless could be found every year if it were sought at the proper time and in the proper places. It was common at Waterloo in the third week of May, 1918. Two specimens were collected on the 23d. It was most abundant in willow thickets.

Horned Lark—Otocoris alpestris alpestris.

On October 16, 1922, a male was shot in Washtenaw County, near the Jackson County line. There were about twelve birds in the flock.

HOYT'S HORNED LARK-Otocoris alpestris hoyi.

A male specimen of this species was collected from a flock of about twenty-five on November 19, 1922, at Waterloo. Both this and the specimen of *alpestris* are now in the University Museum.

GREHARD ORIOLE—Icterus spurius.

A few pairs of orchard orioles nest every year both at Waterloo and Ann Arbor. The birds return each year to the same nesting site.

Evening Grosbeak—Hesperiphona vespertina vespertina.

The Evening Grosbeaks have been seen at Ann Arbor every year in February since 1919.

PINE GROSBEAK—Pinicola enucleator leucura.

On August 15, 1921, a flock of four juvenile birds was seen at Ontonagon. The early date suggests the probability that the birds were reared in the vicinity. Two specimens were collected. Four adults were taken at Waterloo on November 25, 1921. They had been seen by school children about three weeks earlier.

Lark Sparrow—Chondestes grammacus grammacus.

This sparrow nests not uncommonly on the sandy hills of the Huron-Michigan divide near Waterloo. In migration it is often quite common.

Lincoln's Sparrow—Melospiza lincolni lincolni.

On account of its secretive habits the Lincoln Sparrow must be sought in the densest thickets. Careful persevering search will always reveal it in the middle of May and it is sometimes present in numbers. Specimens were collected May 24, 1917, May 11 and 24, 1918, and May 12 and 14, 1920, at Ann Arbor. On the last mentioned date small flocks were observed. On October 3, 1920, several individuals were seen at Frankfort. Rough-winged Swallow—Stelgidopteryx serripennis.

The Rough-wing occurs abundantly along the Huron River at Ann Arbor. Specimens are taken every year, in fact, are more often taken than the other species of swallows on account of their habit of alighting in low bushes within easy gunshot.

Bohemian Waxwing—Bombycilla garrula.

My first record of this Waxwing is of three seen feeding on frozen apples on February 18, 1920, at Waterloo. On the following day about a hundred were found sitting in a tree top in a red oak wood, bordering on a large rosebush swamp. These birds were apparently only the nucleus of a congregation, for during the next few minutes flock after flock arose from the swamp and joined those in the trees till there were fully a thousand birds assembled. Three flocks of about fifty birds each were seen feeding on juniper berries and rosehips on February 21. During January, 1922, a flock of about twenty Waxwings appeared at Ann Arbor and fed for several weeks on the fruit of the highbush cranberry growing in a yard in the city. On February 12 two were collected at Waterloo and it was reported that a flock of about fifty remained in the vicinity until March 18.

Blue-headed Vireo—Lanivireo solitarius solitarius.

This is the rarest of the vireos in my observation. One or two are, however, always met with early in May, both in Jackson and Washtenaw Counties. Specimens were collected at Alpena, Alpena County, on September 11 and 15, 1919.

PHILADELPHIA VIREO-Vircosylva philadelphica.

The Philadelphia Vireo is usually to be found in some numbers at Ann Arbor every spring. Records of specimens collected range from May 17 to May 21. From August 27 to September 2, 1919, the species was rather common with the migrating warblers at Alpena. It was most often met with in the birches.

PROTHONOTARY WARBLER—Protonotaria citrea.

A male was collected along the Huron River near Ann Arbor on May 13, 1917. A female was taken on the 26th in the same locality.

Blue-winged Warbler-Vermivora pinus.

On May 4, 1919, a male was seen at Ann Arbor and a specimen, presumably the same one, was collected later on the same day.

Orange-Crowned Warbler-Vermivora celata eclata.

This is one of the earliest of the warblers, usually arriving along with

the main flock of the Myrtles. The species was noted for the first time in 1917 when a pair was seen at Ann Arbor on May 23. Of these a female was collected. On November 27, 1917, an adult male was taken with a flock of Tree Sparrows at Waterloo. The bird was apparently healthy and uninjured and appeared to suffer in no way, although the ground was covered with snow and the lakes were frozen. On May 4, 1918, several were seen feeding in the opening poplars at Waterloo. Two of these were collected. One only was taken in 1919, on May 3, though several were seen later. In 1920 they were abundant from May 11 to 13 at Ann Arbor, feeding on the opening buds of the underbrush along the river. In 1921 the species was observed only on one day, namely, the 8th of May, and in 1922 only on the 12th. The Orangecrown is both wary and restless and therefore often escapes observation.

CAPE MAY WARBLER-Dendroica tigrina.

The Cape May Warbler can always be found in some numbers in the spring with the last flight of warblers. It has been observed most frequently in willows. At Waterloo the species was very abundant from September 18 to 21, 1918, feeding with the Tennessee, *Vermivora peregrina*, on the juices of grapes.

PINE WARBLER—Dendroica vigorsi.

The Pine Warbler is seldom seen at Ann Arbor. My only records are of one shot on May 6, 1917, of three seen on April 20, 1919, of which one was collected, and of one taken on May 11 of the same year. In September, 1919, it was one of the commonest warblers at Alpena.

CONNECTICUT WARBLER-Oporornis agilis.

This warbler has been rarely met with in the spring, though it probably could be found if sought for. During the last of August and the first week of September in 1919, at Alpena, individuals of the species were seen every day. Most of them were flushed from the brakes beneath the jackpines, but a few were also found in such situations as are frequented by the Yellow-throat. Specimens were collected on August 30 and September 5.

Bewick's Wren-Thryomanes bewicki bewicki.

A male was collected on May 22, 1920, at Ann Arbor, and a female on April 30, 1922, at Waterloo.

SHORT-BILLED MARSH WREN-Cistothorus stellaris.

This wren nests commonly in the vicinity of Waterloo. It frequents marshes which are too wet to mow, but which are still too dry for the Longbill.

TUFTED TITMOUSE—Bacolophus bicolor.

One or two individuals are seen every year at Waterloo, chiefly in winter. A female was collected on November 7, 1921.

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